

DECLARATION UNDER 37 C.F.R. 1.132



#11/P111  
9-26-02  
RECEIVED  
SEP 25 2002  
TC 1700 MAIL ROOM

I, **Paul David CASE**, hereby declare:

1. I reside at 18 Redhill Crescent, Bassett Southamton SO16 7BQ, United Kingdom.
2. I received a degree of Bachelor of Science in Applied Chemistry from Trent Polytechnic, Nottingham in 1978.
3. I am presently a Principal Scientist of British-American Tobacco Company Limited in Southampton, United Kingdom and have been an employee of British-American Tobacco Company Limited since 1978 and have held a number of scientific positions within the Company, including Research Scientist and Senior Research Scientist.
4. I have been closely involved with a number of projects concerning papers for use in the production of smoking articles. I also have a significant amount of experience and knowledge in paper specifications and the supply of papers with given characteristics for use in the production of smoking articles.
5. I understand that in a final Office Action mailed on 22 May 2002, Claims 9-15 and 27-30 of U.S. patent application No. 09/582,232 were rejected.

6. The attached document is a true and accurate version of a part of a document produced by me and dated 29 September 1997 on the subject of performance of cigarette papers incorporating varying forms of permeability control. The content of these documents is to the best of my knowledge accurate and incorporates terminology well-known in the field of wrappers for smoking articles at the time it was written. The supplier codes detailed on the Tables are the original paper codes provided by the paper supplier, and have not in any way been modified by BAT.
7. I understand the permeability of a wrapper for a smoking article to mean, in the absence of any indication relating to additional perforations, the inherent or natural permeability. It is customary to indicate that a wrapper has been perforated by electrostatic, mechanical or other means by expressly referring to such a procedure or by referring to the net permeability of a wrapper. Having read the original patent application, being the subject of U.S. Patent Application No. 09/582,232, I understand that no mention is made of additional perforations to the paper used therein and that the permeability of the paper refers to the inherent permeability of the paper.
8. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made

with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardise the validity of the application or any patent issuing thereon.

Paul Case

**Paul David CASE**

6/9/02.  
**Date**

TABLE 1 PAPER ANALYSES

PAPER	Permeability	Permeability	TENSILE	TENSILE	STRETCH	STRETCH
CODE	C.U./BAT	C.U./PDM.	g/mm	g/mm	%	%
			BAT	PDM	BAT	PDM
M30.C2	39					
M30.C2.EP 80.	78					
M30.C2.EP 130.	111					
M30.C2.EP 180.	164					
M80.C2	78					
M80C2.EP 130.	133					
M80C2.EP 180.	183					
M120C2	136					
M120C2.EP170	173					
M120C2.EP270	277					
M30.C2.LIN/8/5/150	129	187				
M80.C2.LIN/8/5/150	178	235				
M80.C2.LIN/8/300	266	369				
M120C2.LIN/8/5/150	221	271				

ADDITIVE AS % ANHYDROUS CITRIC ACID

TABLE 2

THIS FILE CONTAINS DATA RELATING TO E.P. AND L.P. PAPERS PRODUCED BY PDM AT BAT'S REQUEST									
MANUFACTURING AND Q.C. DATA									
CIG. CODE.	PAPER CODE	TOTAL PERM	ROD WEIGHT	WEIGHT		P.D. MM	P.D. S.D.	CIRCUMF. MM	CIRCUMF. S.D.
				S.D.	MM				
M113	M30.C2	BAT 39							
M114	M30.C2.EP 80.	78							
M115	M30.C2.EP 130.	111							
M116	M30.C2.EP 180.	164							
M117	M80.C2	78							
M118	M80C2.EP 130.	133							
M119	M80C2.EP 180.	183							
M120	M120C2	136							
M121	M120C2.EP170	173							
M122	M120C2.EP270	277							
M123	M30 C2.LIN/8/5/150	129							
M124	M80C2.LIN/8/5/150	178							
M125	M80C2.LIN/8/5/300	266							
M126	M120C2.LIN/8/5/150	221							

TABLE 3

DATA RELATING TO PHYSICAL MEASUREMENTS ON THE PRODUCT.									
CIG. CODE.	PAPER CODE	TOTAL P.D. mm W.G	FILTER P.D. mm W.G	TOB. ROD. P.D. mm W.G	TOTAL WEIGHT mg	TOBACCO WEIGHT mg	TOBACCO DENSITY mg/cc	CIRCUMF mm	Permeability C.U./BAT
M113	M30.C2								31
M114	M30.C2.EP 80.								71
M115	M30.C2.EP 130.								115
M116	M30.C2.EP 180.								179
M117	M80.C2								75
M118	M80C2.EP 130.								134
M119	M80C2.EP 180.								171
M120	M120C2								107
M121	M120C2.EP170								177
M122	M120C2.EP270								269
M123	M30.C2.LIN/8/5/150								125
M124	M80C2.LIN/8/5/150								172
M125	M80C2.LIN/8/5/300								260
M126	M120C2.LIN/8/5/150								224
CIGARETTE CONSTRUCTION:-									
BLEND CHEMISTRY (% DWB):-									
TNA:-									
RED.SUGARS:-									
TOTAL SUGARS:-									

TABLE 4 MAINSTREAM YIELD DATA

	CIG. CODE	PAPER CODE	NFDPM mg/cig	TNA mg/cig	CO mg/cig	PUFF NUMBER
	M113	M30.C2				
	M114	M30.C2.EP 80.				
	M115	M30.C2.EP 130.				
	M116	M30.C2.EP 180.				
	M117	M80.C2				
	M118	M80C2.EP 130.				
	M119	M80C2.EP 180.				
	M120	M120C2				
	M121	M120C2.EP170				
	M122	M120C2.EP270				
	M123	M30.C2.LIN/8/5/150				
	M124	M80.C2.LIN8/5/150				
	M125	M80.C2.LIN8/5/300				
	M126	M120C2.LIN8/5/150				

TABLE 5 DERIVED MAINSTREAM YIELD DATA

CIG. CODE.	PAPER	PER PUFF DELIVERY DATA			DERIVED DATA				
	CODE	NFDPM	TNA	CO	% TNA in	CO to NFDPM			
		mg/puff	mg/puff	mg/puff	NFDPM	RATIO			
M113	M30.C2								
M114	M30.C2.EP 80.								
M115	M30.C2.EP 130.								
M116	M30.C2.EP 180.								
M117	M80.C2								
M118	M80C2.EP 130.								
M119	M80C2.EP 180.								
M120	M120C2								
M121	M120C2.EP170								
M122	M120C2.EP270								
M123	M30.C2.LIN/8/5/150								
M124	M80.C2.LIN8/5/150								
M125	M80.C2.LIN8/5/300								
M126	M120C2.LIN8/5/150								





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D084/P/91/008178

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**CHEMISTRY OF MAINSTREAM AND SIDESTREAM SMOKE  
PRODUCED BY CIGARETTES WITH SPECIAL LOW SIDESTREAM  
CIGARETTE PAPERS**

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February 1992

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**TABLE 2 - SPECIFICATIONS OF DE MAUDUIT LSS CIGARETTE PAPERS**

CIGARETTE PAPER REFERENCE	BASIS WEIGHT (g/m <sup>2</sup> )	FILLER COMPOSITION	BURN ADDITIVES	PERMEABILITY OF BASE PAPER (CORESTA)
505 C5				13
1789 A7				6
1789 C7				5
1789 C7 EP				5*
1989				5
1989 C7				5
1989 C7 EP				5*
1989 C5				5
1989 C5 EP				5*

Ac = Acetate  
Cit = Citrate

\* Electrostatically perforated to 50 CORESTA

FIGURE 5 COMPARISON OF MAINSTREAM AND SIDESTREAM SMOKE PMWNF YIELD FOR NON-PERFORATED AND PERFORATED LSS PAPERS

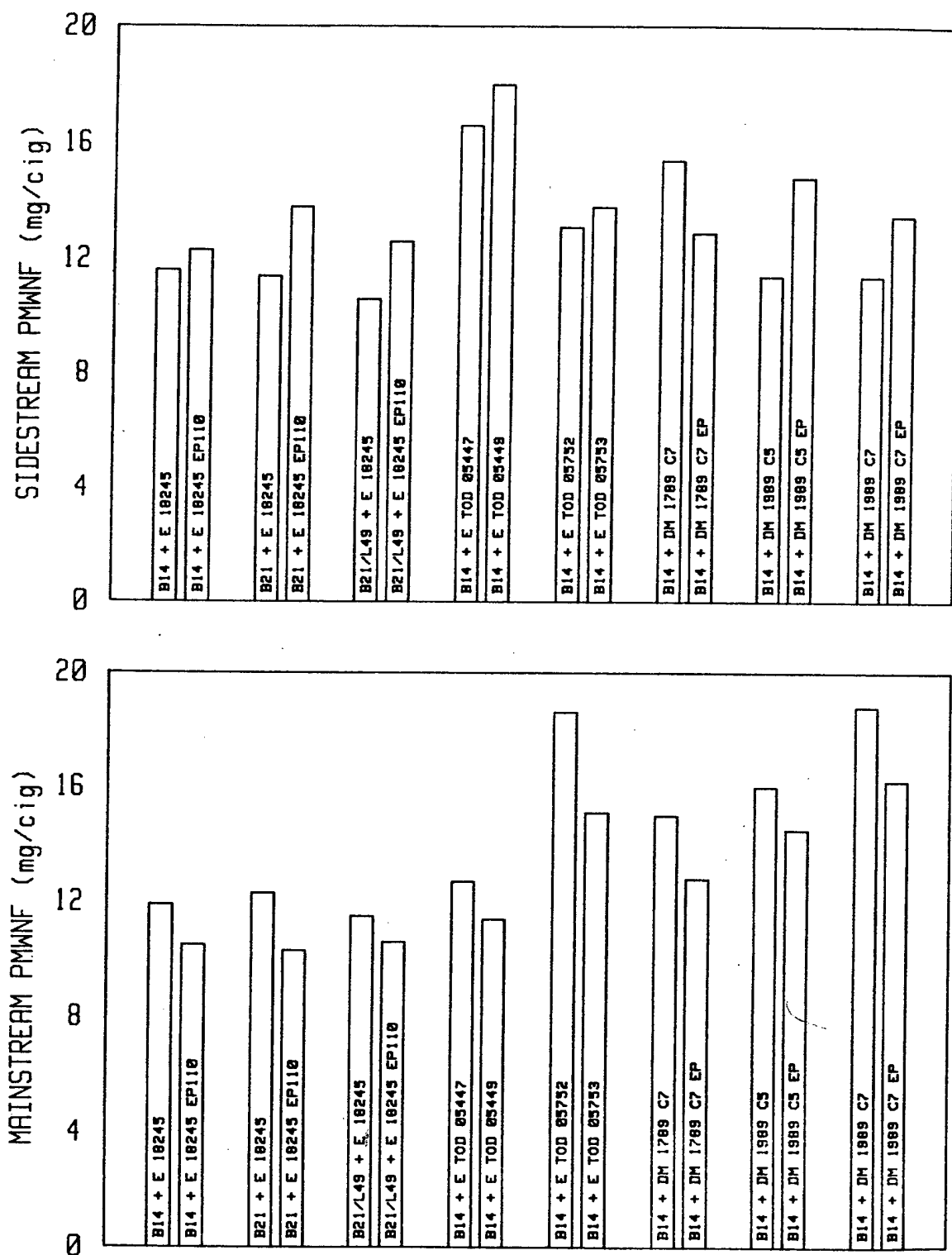


FIGURE 6 COMPARISON OF MAINSTREAM AND SIDESTREAM SMOKE NICOTINE YIELDS FOR NON-PERFORATED AND PERFORATED LSS PAPERS

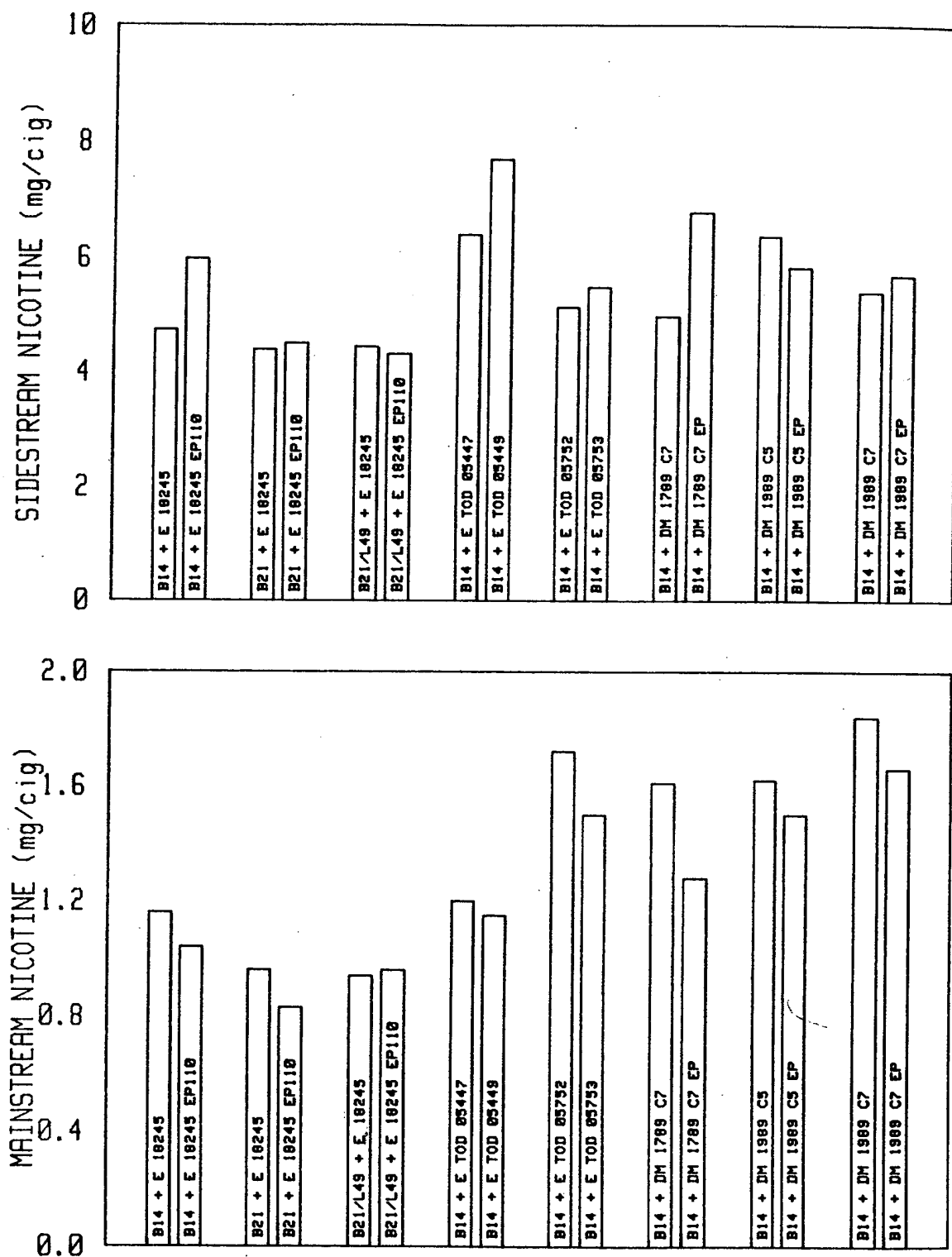


FIGURE 7 COMPARISON OF MAINSTREAM AND SIDESTREAM SMOKE CARBON MONOXIDE YIELDS FOR NON-PERFORATED AND PERFORATED LSS PAPERS

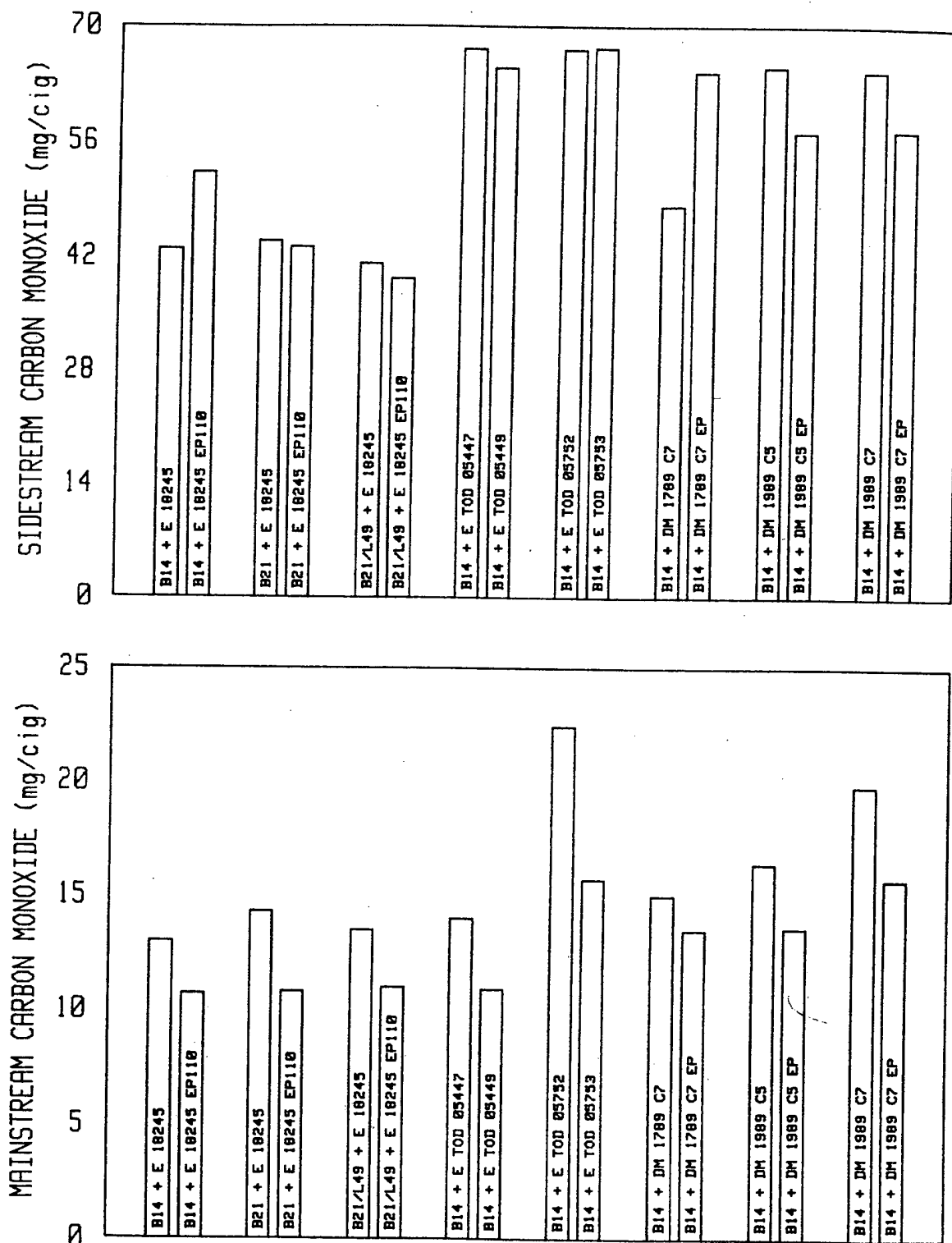
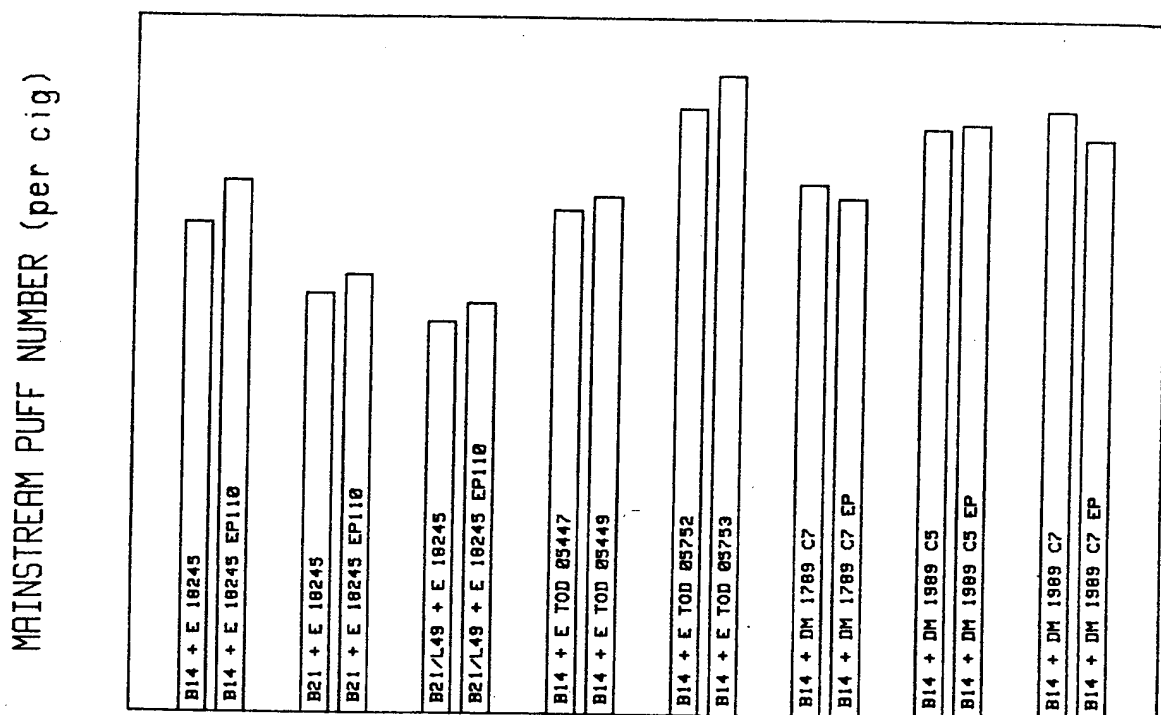


FIGURE 8 COMPARISON OF MAINSTREAM SMOKE PUFF NUMBERS  
FOR NON-PERFORATED AND PERFORATED LSS PAPERS

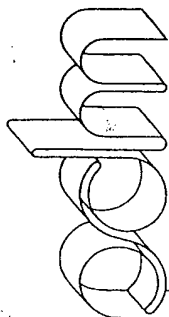


GRADE	SUP REF	LOADING %		PERMEABILITY C.U.		ADDITIVE 1 %		ADDITIVE 2		SUBSTANCE WEIGHT g/m2		OPACITY %		TENSILE g/mm		STRETCH %		FURNISH							
		Min	Max	S.D	Min	Max	S.D	Min	Max	S.D	Min	Max	S.D	Min	Max	S.D									
1	66M	22.0	29.0	2.0	7.0	1.3	1.50	2.50	DSP 0.3	2.00	3.00	PST 0.3	21.5	24.5	0.5	68.0	74.0	1.2	8.0	1.4	2.4	0.2	flax		
2	22-100	25.0	30.0	2.0	6.0	10.0	2.0	0.30	0.70	DSP 0.3	2.00	3.00	PST 0.3	21.0	23.8	0.5	68.5	75.0	1.1	90	1.4	2.4	0.2	wood	
3	305C	24.0	31.0	1.0	6.0	14.0	2.0	0.70	1.50	ACA 0.2	2.00	3.00	PST 0.3	22.0	25.0	0.3	69.0	75.0	1.2	90	1.4	2.4	0.2	flax/wood	
4	515C	23.0	29.0	1.0	9.0	15.0	2.0	0.70	1.10	ACA 0.5	2.00	3.00	PST 0.3	21.0	24.0	0.3	68.0	74.0	1.1	95	1.4	2.4	0.2	flax	
5	60RCF	15.5	24.5	1.0	40.0	60.0	5.0	0.45	0.95	ACA 0.2	2.00	3.00	PST 0.3	27.0	30.0	0.5	69.5	74.5	1.2	95	1.3	2.3	0.2	flax/wood	
6	135/I	21.5	28.5	2.0	10.0	15.0	2.0	0.70	1.10	ACA 0.5	2.00	3.00	PST 0.3	21.0	24.0	0.6	68.0	76.0	1.1	95	1.2	2.4	0.2	flax	
7	860C	26.0	32.0	2.0	10.0	18.0	2.0	0.90	1.40	ACA 0.5	2.00	3.00	PST 0.3	22.5	25.5	0.5	70.0	78.0	1.1	90	1.2	2.4	0.2	wood	
8	382PV	16.5	25.5	2.0	16.0	26.0	3.0	0.20	0.80	MAP 0.5	2.00	3.00	PST 0.3	23.5	27.5	0.6	69.5	76.0	1.2	85	1.2	2.4	0.2	flax	
9	136P	22.0	31.0	2.0	15.0	23.0	2.0	1.40	2.40	DSP 0.3	2.00	3.00	PST 0.3	21.5	24.5	0.6	69.0	78.0	1.1	90	1.2	2.1	0.2	flax	
10	430PP	21.0	28.5	2.0	16.0	24.0	3.0	0.50	0.70	MAP 0.5	2.00	3.00	PST 0.3	22.0	26.0	0.5	69.0	78.0	1.1	90	1.2	2.4	0.2	flax	
11	136/I	23.0	32.0	2.0	18.0	26.0	3.0	0.70	1.20	ACA 0.1	2.00	3.00	PST 0.3	21.5	24.5	0.6	69.0	78.0	1.1	90	1.2	2.4	0.2	flax	
12	72/60	24.0	33.0	2.0	34.0	66.0	5.0	0.75	1.35	ACA 0.5	2.00	3.00	PST 0.3	22.0	25.0	0.6	70.0	78.0	1.1	80	1.2	2.4	0.2	flax/wood	
13	555 RP580C	23.0	32.0	2.0	34.0	66.0	5.0	0.75	1.35	ACA 0.5	2.00	3.00	PST 0.3	22.5	28.5	0.6	69.0	78.0	1.1	80	1.2	2.4	0.2	flax	
14	558	22.0	32.0	2.0	23.0	35.0	3.0	0.70	1.20	ACA 0.1	2.00	3.00	PST 0.3	22.5	26.0	0.6	68.0	74.0	1.2	80	1.0	2.2	0.2	flax	
15	137P	23.0	33.0	2.0	28.0	39.0	3.3	1.50	2.50	DSP 0.2	2.00	3.00	PST 0.3	22.5	25.5	0.5	68.5	75.0	1.2	75	1.0	2.2	0.2	flax	
16	110/6	25.0	34.0	1.5	31.0	47.0	4.0	0.70	1.20	ACA 0.2	2.00	3.00	PST 0.3	23.0	26.0	0.5	69.0	73.0	1.2	70	1.3	2.1	0.2	flax	
17	553	24.0	33.0	1.5	34.0	56.0	5.0	0.65	1.15	ACA 0.2	2.00	3.00	PST 0.3	22.0	26.0	0.5	69.5	78.0	1.2	70	1.0	2.2	0.2	flax	
18	130CR	23.0	32.0	2.0	40.0	60.0	5.0	0.70	1.20	ACA 0.12	2.00	3.00	PST 0.3	23.0	27.0	0.6	69.5	75.0	1.2	75	1.2	2.4	0.2	flax/wood	
19	511C	24.0	33.0	2.0	50.0	75.0	6.0	0.50	1.00	ACA 0.1	2.00	3.00	PST 0.3	23.0	26.0	0.6	70.0	78.0	1.2	75	1.0	2.2	0.2	flax/wood	
20	575C	24.0	33.0	2.0	48.0	72.0	6.0	0.65	1.05	ACA 0.5	2.00	3.00	PST 0.3	23.0	27.0	0.6	69.0	73.0	1.2	70	1.2	2.4	0.2	flax/wood	
21	95C	24.0	33.0	2.0	50.0	75.0	6.0	0.50	1.00	ACA 0.1	2.00	3.00	PST 0.3	23.0	27.0	0.6	69.0	73.0	1.2	70	1.0	2.0	0.2	flax/wood	
22	CAMHP2M	21.0	28.5	2.0	64.0	96.0	8.0	0.70	1.30	ACA 0.2	2.00	3.00	PST 0.3	23.5	27.0	0.5	70.0	76.0	1.2	80	1.2	2.4	0.2	flax	
23	CAMHP3M	27.4	37.2	2.0	47.7	69.7	6.0	0.55	1.00	ACA 0.1	2.00	3.00	PST 0.3	21.5	24.5	0.5	70.0	76.0	1.2	80	1.2	2.4	0.2	flax	
24	CAMHP5M	22.5	27.5	2.0	21.0	24.0	3.0	0.35	0.65	MAP 0.5	2.00	3.00	PST 0.3	23.5	27.5	0.5	70.0	76.0	1.2	80	1.2	2.4	0.2	flax/wood	
25	MCHP12/15M	22.5	27.5	2.0	99.0	140.0	8.0	0.40	1.00	ACA 0.5	2.00	3.00	PST 0.3	21.0	24.0	0.5	70.0	78.0	1.2	80	1.2	2.4	0.2	flax	
26	150C	25.0	34.0	2.0	25.0	34.0	7.0	0.65	1.05	ACA 0.5	2.00	3.00	PST 0.3	24.0	28.0	0.6	70.0	78.0	1.2	80	1.2	2.4	0.2	flax/wood	
27	30RCF	15.5	24.5	1.0	22.5	33.5	3.0	0.45	0.95	ACA 0.2	2.00	3.00	PST 0.3	27.0	30.0	0.5	69.0	75.0	1.2	95	1.2	2.4	0.2	flax/wood	
28	340 C2	24.0	33.0	2.0	18.0	40.0	4.0	1.80	2.25	ACA 0.5	2.00	3.00	PST 0.3	24.0	28.0	0.6	70.0	78.0	1.2	80	1.2	2.4	0.2	flax/wood	
29	65C	15.5	24.5	1.2	52.0	78.0	5.0	0.55	0.85	ACA 0.2	2.00	3.00	PST 0.3	24.0	28.0	0.6	69.0	75.0	1.2	75	1.0	2.2	0.2	flax/wood	
30	RSHP1	22.5	27.5	1.2	9.0	13.0	2.0	1.50	2.50	PST 0.5	2.00	3.00	PST 0.3	27.0	31.0	0.6	70.0	75.0	1.2	95	1.2	2.4	0.2	flax/wood	
31	66S	22.5	27.5	1.2	15.0	21.0	2.0	1.50	2.50	PST 0.5	2.00	3.00	PST 0.3	21.0	23.0	0.6	70.0	78.0	1.2	80	1.2	2.4	0.2	wood	
32	RSCA	22.0	30.0	1.0	12.0	20.0	2.0	0.20	0.70	DSP 0.1	2.00	3.00	PST 0.3	21.0	23.0	0.6	70.0	78.0	1.2	80	1.2	2.4	0.2	wood	
33	118RC	22.0	30.0	1.0	12.0	20.0	2.0	0.30	0.80	ACA 0.2	2.00	3.00	PST 0.3	23.0	32.0	0.5	69.0	76.0	1.2	85	1.4	2.2	0.3	wood	
34	ECST12656	24.0	33.0	2.0	24.0	28.0	2.0	0.15	0.45	ACA 0.5	2.00	3.00	PST 0.3	23.0	26.5	0.5	69.0	76.0	1.2	85	1.4	2.2	0.3	wood	
35	3099J	26.0	32.0	2.0	34.0	50.0	2.0	0.85	1.45	ACA 0.5	2.00	3.00	PST 0.3	23.6	26.0	0.5	71.0	78.0	1.2	100	1.2	2.4	0.3	wood	
36	3140C2EP	20.0	26.0	2.0	48.0	72.0	3.0	0.35	0.95	ACA 0.5	2.00	3.00	PST 0.3	23.0	26.0	0.5	70.0	78.0	1.2	80	1.2	2.4	0.3	flax	
37	30155	20.0	26.0	2.0	56.0	84.0	4.0	0.35	0.95	ACA 0.5	2.00	3.00	PST 0.3	25.0	29.0	0.5	68.0	78.0	1.2	80	1.2	2.4	0.3	flax/wood	
38	370C/319C	22.5	31.0	2.0	12.0	21.0	2.0	0.80	1.40	ACA 0.1	2.00	3.00	PST 0.3	22.0	25.0	0.5	69.0	74.0	1.2	80	1.2	2.4	0.3	flax/wood	
39	66F 3120C	23.0	28.0	2.0	80.0	120.0	5.0	0.60	1.30	ACA 0.1	2.00	3.00	PST 0.3	22.7	27.3	0.5	69.0	78.0	1.2	90	1.2	2.4	0.3	wood	
40	E39026	25.0	35.0	2.0	14.0	22.0	3.0	0.95	1.45	ACA 0.1	2.00	3.00	PST 0.3	22.0	25.0	0.5	70.0	78.0	1.2	80	1.2	2.4	0.3	flax/wood	
41		24.0	33.0	2.0	24.0	36.0	4.0	0.70	1.20	ACA 1.2	2.00	3.00	PST 0.3	21.5	25.5	0.5	68.0	73.0	1.2	80	1.1	2.2	0.2	flax	
42	MCHP5M	22.5	27.5	2.0	39.0	49.0	4.0	0.84	1.12	ACA 0.5	2.00	3.00	PST 0.3	21.0	24.0	0.5	70.0	78.0	1.2	80	1.2	2.4	0.2	flax	
43	WOOD BAT01	21.0	29.5	2.0	20.0	30.0	3.0	0.90	1.40	ACA 0.5	2.00	3.00	PST 0.3	21.0	24.0	0.5	69.0	78.0	1.2	80	1.2	2.4	0.2	wood	
44	156	24.5	33.5	2.0	10.0	20.0	2.0	0.75	1.35	ACA 0.2	2.00	3.00	PST 0.3	22.5	25.5	0.5	68.0	74.0	1.2	88	6	1.1	2.3	0.2	wood
45	95P	23.0	33.0	2.0	20.0	32.0	5.0	0.40	0.80	ACA 0.2	2.00	3.00	PST 0.3	24.5	27.0	0.5	69.0	78.0	1.2	85	5	1.0	2.0	0.2	flax
46	95J	25.0	34.0	2.0	64.0	96.0	8.0	0.30	0.70	MAP 0.1	2.00	3.00	PST 0.3	23.5	26.5	0.5	71.0	78.0	1.2	70	1.2	2.4	0.2	flax/wood	
47	850C	22.0	32.0	2.0	30.0	50.0	5.0	0.63	1.17	ACA 0.1	2.00	3.00	PST 0.3	23.0	33.0	2.0	68.0	76.0	1.2	70	1.2	2.4	0.2	flax/wood	
48	E553	21.0	31.0	2.0	40.0	60.0	5.0	0.85	1.10	ACA 0.1	2.00	3.00	PST 0.3	23.0	33.0	2.0	68.0	76.0	1.2	70	1.2	2.4	0.2	flax/wood	
49	375C	24.0	34.0	2.0	52.0	78.0	5.0	0.45	0.85	ACA 0.5	2.00	3.00	PST 0.3	23.0	33.0	2.0	68.0	76.0	1.2	70	1.2	2.4	0.2	wood	
50		24.0	34.0	2.0	40.0	60.0	5.0	0.40	0.80	MAP 0.1	2.00	3.00	PST 0.3	23.0	33.0	2.0	68.0	76.0	1.2	70	1.2	2.4	0.2	flax/wood	
51	130J	24.0	34.0	2.0	40.0	60.0	5.0	0.45	0.85	ACA 0.5	2.00	3.00	PST 0.3	23.0	33.0	2.0	68.0	76.0	1.2	70	1.2	2.4	0.2	flax/wood	
52	553M	24.0	34.0	2.0	100.0	140.0	5.0	0.40	0.80	ACA 0.5	2.00	3.00	PST 0.3	23.0	33.0	2.0	68.0	76.0	1.2	70	1.2	2.4	0.2	wood/usp	
53	14CR	18.5	23.5	2.0	36.0	54.0	5.0	0.40	0.80	ACA 0.5	2.00	3.00	PST 0.3	22.5	25.5	0.5	69.5	75.0	1.2	75	1.2	2.3	0.2	flax/wood	
54	553RC	24.0	33.0	2.0	36.0	54.0	5.0	0.40	0.80	ACA 0.5	2.00	3.00	PST 0.3	22.0	25.0	0.6	69.5	78.0	1.2	75	1.2	2.4	0.2	flax/wood	
55	12-656	23.0	32.0	2.0	22.0	34.0	5.0	2.00	0.40	ACA 0.5	2.00	3.00	PST 0.3	27.0	31.0	0.6	70.0	78.0	1.2	75	1.2	2.4	0.2	flax	
56	HP553	25.0	34.0	2.0	40.0	60.0	5.0	0.60	1.10	ACA 0.2	2.00	3.00	PST 0.3												



SUP REF	LOADING %			PERMEABILITY C.U.			ADDITIVE 1 %			ADDITIVE 2			SUBSTANCE WEIGHT g/m <sup>2</sup>			TENSILE g/mm			STRETCH %			FURNISH
	Min	Max	S.D.	Min	Max	S.D.	Min	Max	S.D.	Min	Max	S.D.	Min	Max	S.D.	Min	S.D.	Min	Max	S.D.		
61	318C	24.5	33.5	2.0	10.0	20.0	4.0	0.75	1.35	ACA 0.5		22.5	25.5	0.5	68.0	78.0	80	3.5	1.2	2.4	0.2	flax/wood
62	554A	23.0	33.0	2.0	21.0	31.0	4.0	0.70	1.10	ACA 0.5		23.7	26.3	0.5	69.0	78.0	75	3.5	1.2	2.4	0.2	flax
63	JURQ U/C	21.5	30.5	2.0	80.0	120.0	4.0	0.60	1.10	ACA 0.5		24.0	28.0	0.5	69.0	78.0	65	3.5	1.2	2.4	0.2	flax/wood
64	MCHP 6M	22.0	32.0	2.0	40.0	60.0	5.0	0.70	1.20	ACA 0.1		24.0	27.0	0.5	70.0	75.0	75	5.0	1.0	1.9	0.2	wood
65	29-60 CRF	15.5	24.5	1.0	40.0	60.0	5.0	1.60	2.40	ACA 0.5		27.5	30.5	0.5	68.5	74.0	95	7.0	1.3	2.3	0.2	flax/wood
66		15.0	35.0	3.0	38.0	62.0	6.0	0.70	0.90	ACA 0.5		23.5	27.5	0.5	68.0	80.0	80	5.0	1.2	2.4	0.2	wood
67	318J	24.0	32.0	2.0	10.0	20.0	5.0	0.30	0.70	MAP 0.5		22.5	25.5	0.5	70.0	78.0	90	5.0	1.2	2.4	0.2	flax/wood
68	123TAM	22.5	33.0	2.0	14.0	24.0	5.0	2.00	3.50	PST 1.0		23.3	25.7	2.0	66.0	75.0	88	5.0	1.2	2.0	0.2	wood
69	121T	14.5	24.5	2.0	10.0	20.0	5.0	0.55	1.15	ACA 2.0		20.3	22.7	0.5	60.0	65.0	82	5.0	1.0	2.2	0.2	flax/wood
70	VERGE81	24.0	34.0	2.0	55.0	83.0	5.0	0.65	1.05	ACA 0.5		23.0	26.0	0.5	71.0	79.0	75	5.0	1.2	2.4	0.2	wood
71	MT33703	25.0	34.0	2.0	40.0	60.0	7.0	0.50	1.00	ACA 0.5		24.0	27.0	0.5	70.0	79.0	70	5.0	1.2	2.4	0.2	flax
72	MT50CU	15.0	35.0	2.0	23.0	33.0	5.0	0.65	0.95	ACA 0.5		23.8	26.4	0.5	72.5	80.0	83	5.0	1.2	2.4	0.2	flax/wood
73	120C	21.5	30.5	2.0	80.0	120.0	8.0	0.60	1.10	ACA 0.5		24.0	28.0	0.5	68.0	79.0	65	5.0	1.2	2.4	0.2	wood
74		15.0	25.0	2.0	15.0	21.0	5.0	1.00	2.00	ACA 0.5	0.70 1.30 MAP 0.5	21.0	23.0	0.5	68.0	80.0	70	5.0	1.2	2.4	0.2	flax/wood
75	1441SUPAIR	12.5	16.5	2.0	54.0	62.0	5.0	0.70	1.30	PST 0.5	0.70 0.30 MAP 0.5	20.0	24.0	0.5	69.0	79.0	84	5.0	1.2	2.4	0.2	wood
76	1441	12.5	16.5	2.0	10.0	14.0	5.0	0.70	1.30	PST 0.5	0.70 0.30 MAP 0.5	20.0	24.0	0.5	79.0	89.0	84	5.0	1.2	2.4	0.2	flax
77	150EP200	25.0	34.0	2.0	180.0	240.0	10.0	0.65	1.05	ACA 0.5		24.0	28.0	0.5	71.0	89.0	65	5.0	1.2	2.4	0.2	flax/wood
78	130CR EP100	23.0	32.0	2.0	80.0	120.0	10.0	0.70	1.20	ACA 0.1		23.0	27.0	0.5	69.5	75.0	75	5.0	1.2	2.0	0.2	flax/wood
79	556EP65	23.0	32.0	2.0	52.0	78.0	5.0	0.70	1.10	ACA 0.1		21.5	24.5	0.5	69.0	79.0	90	5.0	1.2	2.4	0.2	flax
80	556EP120	23.0	32.0	2.0	96.0	144.0	10.0	0.70	1.20	ACA 0.5		22.5	26.0	0.5	68.0	79.0	80	5.0	1.2	2.4	0.2	flax
81	3130C	21.0	31.0	0.6	79.0	135.0	5.0	0.58	1.32	ACA 0.5		25.8	28.2	0.5	68.0	90.0	68	2.0	0.8	1.4	0.5	flax/wood
82	3140C2	21.0	31.0	0.6	120.0	200.0	7.0	1.50	3.00	ACA 0.5		25.8	28.2	0.5	68.0	90.0	80	5.0	0.8	1.2	0.2	flax/wood
83	NOT ASSIGNED																					
84	NOT ASSIGNED																					
85	NOT ASSIGNED																					
86	NOT ASSIGNED																					
87	NOT ASSIGNED																					
88	NOT ASSIGNED																					
89	3140C2 EP320	21.0	31.0	0.6	235.0	380.0	8.0	1.50	3.00	ACA 0.5		25.8	28.2	0.5	68.0	80.0	68	2.0	0.8	1.2	0.2	flax/wood
90																						
91	52522	22.0	32.0	2.0	14.0	26.0	5.0	0.35	0.65	ACA 0.5		21.0	23.5	0.6	70.0	78.0	75	7.0	1.2	2.4	0.2	flax
92	52522 EP75	22.0	32.0	2.0	47.0	77.0	5.0	0.35	0.65	ACA 0.5		21.0	23.5	0.6	70.0	78.0	70	7.0	1.0	2.4	0.2	flax
93	35C22	22.0	32.0	2.0	24.0	38.0	4.0	0.70	1.20	ACA 0.5		20.5	23.0	0.6	69.0	75.0	70	5.0	1.1	2.4	0.2	flax
94	35P22	22.0	32.0	2.0	24.0	38.0	5.0	0.30	0.70	MAP 0.5		20.5	23.0	0.6	69.0	78.0	70	5.0	1.1	2.1	0.2	flax
95	55C23	22.0	32.0	2.0	39.0	63.0	5.0	0.60	1.00	ACA 0.5		22.5	25.0	0.6	70.0	78.0	65	5.0	1.0	2.4	0.2	flax
96	35C25	22.0	32.0	2.0	24.0	38.0	5.0	0.70	1.20	ACA 0.5		24.0	26.5	0.5	71.0	80.0	80	5.0	1.1	2.4	0.2	flax
97	525 25 EP75	23.0	33.0	2.0	47.0	77.0	8.0	0.35	0.65	ACA 0.2		24.0	26.5	0.5	72.0	80.0	80	5.0	1.0	2.4	0.2	flax
98		23.0	33.0	2.0	30.0	50.0	5.0	0.70	1.30	ACA 0.2		23.8	26.2	0.6	68.0	80.0	75	5.0	1.1	2.4	0.2	wood
99		23.0	33.0	2.0	30.0	40.0	5.0	0.70	1.30	ACA 0.2		23.8	26.2	0.6	68.0	80.0	75	5.0	1.1	2.4	0.2	wood
100	B575C	22.0	32.0	2.0	45.0	75.0	5.0	0.65	1.25	ACA 0.2		24.3	26.7	0.6	69.0	79.0	35	5.0	1.0	2.4	0.2	wood
101	130CR EP100	23.0	33.0	2.0	95.0	155.0	10.0	0.75	1.35	ACA 0.2		23.0	26.2	0.8	68.0	75.0	75	5.0	1.1	2.4	0.2	wood
102	B556 EP120	23.0	33.0	2.0	95.0	155.0	10.0	0.75	1.35	ACA 0.2		23.8	26.3	0.6	68.0	75.0	75	5.0	1.1	2.4	0.2	wood
103	B575C EP160	23.0	32.0	0.8	125.0	205.0	5.0	0.85	1.25	ACA 0.5		24.3	26.7	0.5	69.0	90.0	70	5.0	0.9	1.2	0.2	wood
104	354 1C	23.0	33.0	2.0	34.0	56.0	6.0	0.70	1.30	ACA 0.2		23.5	26.0	0.5	69.0	78.0	80	5.0	1.0	2.4	0.2	flax/wood
105	154 C2	23.0	33.0	0.5	34.0	56.0	5.0	1.40	2.60	ACA 1.0		24.5	27.0	1.0	66.0	72.0	80	5.0	1.0	2.0	0.2	wood
106		25.0	35.0	2.0	24.0	32.0	5.0	0.65	1.15	ACA 0.5		23.0	26.0	0.5	67.0	74.0	88	5.0	1.0	2.0	0.2	wood
107	154	23.0	33.0	2.0	25.0	35.0	5.0	1.25	1.75	ACA 1.0		23.0	27.0	2.0	68.0	74.0	88	5.0	1.0	2.0	0.2	wood
108		23.0	33.0	2.0	26.0	39.0	5.0	1.50	2.50	DSP 0.5		22.5	25.5	0.5	68.5	75.0	88	5.0	1.0	2.0	0.2	wood
109		23.0	32.0	2.0	29.0	41.0	5.0	0.55	0.95	ACA 2.0		22.0	26.0	2.0	66.0	73.0	88	5.0	1.0	2.0	0.2	wood
110		24.0	33.0	2.0	64.0	96.0	5.0	0.70	1.30	ACA 1.0		23.5	27.0	0.3	60.0	75.0	85	3.5	1.2	2.2	0.2	wood
111	29 80 CF	23.0	33.0	2.0	34.0	56.0	6.0	0.70	1.30	ACA 0.2		23.5	26.0	0.5	69.0	78.0	80	5.0	1.0	2.4	0.2	flax/wood
112		25.5	35.5	2.0	24.0	32.0	4.0	0.25	0.75	ACA 2.0		23.0	27.0	2.0	69.0	75.0	88	5.0	1.0	2.5	0.2	wood
113		23.5	32.0	2.0	29.0	41.0	5.0	0.75	1.25	ACA 2.0		23.0	26.0	2.0	68.5	73.0	88	5.0	1.0	2.0	0.2	wood
114	NOT USED																					
115	NOT USED																					
116	NOT USED																					
117	NOT USED																					
118	NOT USED																					
119	NOT USED																					
120	NOT USED																					
121	NOT USED																					
122	NOT USED																					
123	NOT USED																					
124	NOT USED																					
125	NOT USED																					

GRADE	SUP REF	LOADING %		PERMEABILITY C.U.		ADDITIVE 1 %		ADDITIVE 2		SUBSTANCE WEIGHT g/m <sup>2</sup>		OPACITY %		TENSILE g/min		STRETCH %		FURNISH				
		Min	Max	S.D.	Min	Max	S.D.	Min	Max	S.D.	Min	Max	S.D.	Min	Max	S.D.						
126	NOT USED																					
127	329C EP65	23.0	33.0	2.0	50.0	80.0	5.0	0.75	1.35	ACA 2.0	22.8	25.5	2.0	70.0	90.0	2.0	85	7.0	1.0	2.5	2.0	flax/wood
128	315 PV	20.0	30.0	2.0	10.0	18.0	5.0	0.26	0.66	MAP 2.0	21.5	24.0	2.0	67.0	90.0	2.0	90	5.0	1.2	2.5	2.0	flax/wood
129	72 60	23.0	33.0	2.0	19.0	31.0	5.0	1.35	2.45	ACA 2.0	24.3	26.7	2.0	69.0	90.0	2.0	85	6.0	1.1	2.5	2.0	flax/wood
130	MIST D EP 900	23.0	33.0	1.0	69.0	111.0	5.0	0.75	1.35	ACA 1.0	22.3	24.7	1.0	70.0	90.0	2.0	85	6.0	1.1	2.5	2.0	flax/wood
131	515 C EP60	23.0	33.0	1.0	46.0	74.0	5.0	0.75	1.35	ACA 1.0	23.3	25.7	2.0	70.0	90.0	2.0	85	5.0	1.2	2.5	2.0	flax/wood
132	NOT USED																					
133	NOT USED																					
134																						
135	541 C	23.0	35.0	4.2	20.0	30.0	3.0	0.40	0.70	ACA 0.1	23.0	27.0	0.7	74.0	78.0	2.2	100	5.0	0.8	2.5	0.2	flax
136	824 M100	16.5	20.5	3.5	70.0	104.0	5.0	0.25	0.87	ACA 0.5	23.0	26.0	2.0	75.0	86.0	2.0	73	5.0	0.8	2.2	1.2	flax/wood
137	824 C100	13.0	20.0	1.2	600.0	900.0	5.0	0.45	0.65	ACA 1.0	23.5	26.5	1.0	73.0	95.0	1.2	75	7.0	0.7	2.0	1.0	flax/wood
138	BAT GERMANY																					
139	BAT GERMANY																					
140	BAT GERMANY																					
141	BAT GERMANY																					
142	BAT GERMANY																					
143	87 24 FLC	23.0	33.0	1.0	19.0	31.0	5.0	0.35	0.65	ACA 0.1	23.8	26.2	1.0	71.0	90.0	2.0	80	5.0	1.1	2.0	2.0	flax/wood
144	130 CR2	22.0	32.0	0.6	38.0	62.0	2.0	1.40	2.60	ACA 0.5	25.5	27.0	0.5	69.0	80.0	1.2	75	5.0	1.0	2.0	0.2	flax/wood
145	378 A	22.0	32.0	2.0	50.0	80.0	5.0	1.25	2.25	ACA 2.0	24.0	26.5	1.0	70.0	90.0	2.0	75	5.0	1.0	2.0	2.0	flax/wood
146	BP33	23.0	33.0	2.0	25.0	41.0	5.0	0.70	1.30	DSP 0.5	23.5	26.0	1.0	69.0	75.0	1.2	80	7.0	1.0	2.4	0.2	wood
147	118J																					
148	NOT USED																					
149	NOT ASSIGNED																					
150	FLET INDIA																					
151	FLET IVYVEG	1.5	4.5	0.5	1.0	10.0	5.0				13.0	23.0	0.5	30.0	41.0	1.2	80	5.0	1.0	2.2	0.2	flax/wood
152	PDM BUGLER																					
153	PDM BUGLER																					
154	MANCHESTER																					
155	MANCHESTER																					
156	MANCHESTER																					
157	MANCHESTER	23.0	33.0	1.0	20.0	32.0	5.0	0.40	0.80	ACA 1.0	24.5	27.0	1.0	71.0	90.0	1.2	85	7.0	1.0	2.5	1.2	flax
158	B24M100 EP15	16.5	20.5	1.2	110.0	190.0	5.0	0.25	0.67	ACA 1.0	23.0	26.0	1.0	75.0	95.0	1.2	100	5.0	0.5	1.2	1.2	flax
159	572 C 150	23.0	33.0	1.2	60.0	150.0	5.0	1.75	2.25	ACA 0.5	23.0	29.0	1.0	70.0	80.0	1.2	80	5.0	1.0	2.0	1.2	flax
160	396C	22.0	32.0	1.0	60.0	100.0	5.0	0.80	1.40	ACA 1.0	24.5	27.0	1.0	69.0	90.0	2.0	75	5.0	0.8	2.0	1.0	flax/wood
161	L50C EP135	22.0	32.0	1.0	103.0	167.0	5.0	0.65	1.15	ACA 1.0	24.3	26.7	1.0	71.0	90.0	5.0	70	5.0	1.0	2.5	2.0	flax/wood
162	BAT 16 W	22.0	32.0	0.5	23.0	35.0	3.0	0.70	1.20	ACA 0.5	22.5	26.0	0.2	68.0	74.0	1.2	80	6.0	1.0	2.2	0.5	wood
163	BAT144 W	21.5	31.5	0.5	42.0	62.0	5.0	1.70	2.20	ACA 0.5	25.0	27.5	0.2	69.0	75.0	1.2	75	5.0	1.0	2.2	0.2	wood
164																						
165																						
166		16.5	25.5	1.2	64.0	96.0	8.0	0.80	1.10	ACA 1.0	27.0	33.0	0.6	69.5	75.0	1.2	100	7.0	1.4	2.3	2.0	flax/wood
167																						
168																						
169																						
170																						
200	PW 23 15AD	7.5	12.5	0.5	6.0	10.0	2.0				22.0	24.0	0.2	60.0	90.0	5.0	136	5.0	1.0	2.0	0.5	wood
221	PW26	9.0	14.0	1.2	5.0	13.0	5.0				24.5	27.5	1.0	65.0	80.0	1.2	130	7.0	0.5	1.5	1.0	wood



# ROTHMANS / U.K. : SIDE STREAM SAMPLES

SEPTEMBER 1990

DATE	GRADE	POROSITY		BURNING AGENT	RATE %	WEIGHT gsm	FILLER %	OPACITY %
		BASIC	FINAL					
13/04/90	1789 C7	5.0						
10/05/90	1989	5.0						
	1989 C7	5.0						
20/06/90	1989 C5	5.0						
28/06/90	1989 C7	5.0						
	1989 A5	5.0						
	1789 C7 EP1	5.0	53.0					
	1789 C7 EP2	5.0	85.0					
	1989 C7 EP1	5.0	55.0					
26/07/90	1989 C5 EP1	5.0	55.0					
	1989 C7 EP1	5.0	55.0					
	1789 C7 EP1	5.0	53.0					
	304 P	4.0						